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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,954	08/20/2003	Mitsuo Hayashibara	520.43023X00	4989
20457	7590	04/22/2004	EXAMINER	
ANTONELLI, TERRY, STOUT & KRAUS, LLP 1300 NORTH SEVENTEENTH STREET SUITE 1800 ARLINGTON, VA 22209-9889			NGUYEN, KIET TUAN	
			ART UNIT	PAPER NUMBER
			2881	

DATE MAILED: 04/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/643,954	<b>Applicant(s)</b> HAYASHIBARA ET AL.	
	<b>Examiner</b> Kiet T. Nguyen	<b>Art Unit</b> 2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,2,4 and 8-13 is/are allowed.
- 6) ☒ Claim(s) 3,14 and 15 is/are rejected.
- 7) ☒ Claim(s) 5-7 and 15-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>20040418</u> . | 6) <input type="checkbox"/> Other: ____.  |

***Objected Informalities***

The disclosure is objected to because of the following informalities:

**In The Claims**

Claim 5, line 3, "chamber" should be -- container --.

Claim 6, line 3, "chamber" should be -- container --.

Claim 7, line 3, "chamber" should be -- container --.

Claim 15, line 4, "of electron beam" should be -- of an electron beam --.

Claim 16, line 1, "13" should be -- 15 --.

Claim 17, line 1, "13" should be -- 15 --.

Claim 18, line 1, "13" should be -- 15 --.

Claim 19, line 1, "define in claim 13" should be -- defined in claim 15 --.

Claim 20, line 1, "13" should be -- 15 --.

Appropriate correction is required.

***Rejection Under 35 U.S.C. 112, Second Paragraph***

Claims 3, 14 and 15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 3 recites the limitation "the components" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 14 recites the limitation "the outer frame" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

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Claim 14 recites the limitation "the united electron microscope" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 recites the limitation "the members" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim 15 is indefinite for reciting the limitation "the members listed above" in line 7. What are the members that are listed above?

Claims 1-2, 4 and 8-13 are allowed.

Claims 3, 5-7 and 14-20 would be allowable if rewritten to overcome the objection(s) and the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

**Reasons for indicating allowable subject matter**

The prior art fails to disclose an electron microscope having a casing for housing a vacuum container, a vacuum pump and an electron microscope as recited in claims 1 and 15.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1) Ishida et al. disclose an ultra-high vacuum apparatus for an electron microscope; and

2) Magome discloses a vacuum apparatus for an electron exposure device.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kiet T. Nguyen whose telephone number is 571-272-

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2479. The examiner can normally be reached on Monday-Friday from 8.00 AM to 6.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R Lee, can be reached on Monday-Friday. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
KIET T. NGUYEN  
PRIMARY EXAMINER